

USAWC STRATEGY RESEARCH PROJECT

**JOINT TRANSFORMATION AND THE DECISION TO USE FORCE**

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## **ABSTRACT**

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As the United States military transforms to fulfill its goal of Full Spectrum Dominance, it is expected to have greater speed, precision, lethality, endurance, and a reduction in collateral damage. These are all characteristics that would conceivably make the use of force more acceptable to the public. Potentially a military campaign could produce fewer casualties and less destruction while still bringing about the defeat of the enemy. This paper couples potential future force capabilities with potential future global scenarios to determine if the decision point to use force is likely to shift to an earlier point in the grand strategy as a result of transformation. It concludes that although the conduct of war will change as a result of transformation, the decision to wage war will not be significantly affected. At the grand strategy level in the United States, considerations of how to achieve enduring security within acceptable political and ethical constraints will prevail over the expedient use of military power.



## JOINT TRANSFORMATION AND THE DECISION TO USE FORCE

The goal of our statecraft is to help create a world of democratic, well-governed states that can meet the needs of their citizens and conduct themselves responsibly in the international system. This is the best way to provide enduring security for the American people.<sup>1</sup>

—George W. Bush

A nation protects and furthers its national interests through the use of a strategy for developing, applying, and coordinating its instruments of national power – diplomatic, informational, military, and economic.<sup>2</sup> When an interest is threatened, a strategy is formulated. At some point, this strategy could include the violent, kinetic, use of force – either in war or the commission of a warlike act. With respect to feasibility, if a nation with a relatively limited means of waging war decided on that course at all, it would likely occur at a much later point in the strategy than for a nation with a relatively strong means of waging war. However, the contrary does not necessarily hold true. A nation with the capability of quickly and completely annihilating its enemy may find this strategy to be the most cost effective and feasible, but be restrained from using it because it is not acceptable to its citizens. Determining when and how much force to apply is a complex decision.

The United States has not always envisioned having a strong military. The Continental Army was disbanded because the founders feared a standing army. Over time, military strength has waxed and waned according to the needs of the nation and its security strategy. Prior to the terrorist attacks of 11 September 2001, the National Security Strategy called for a “strong military” and a policy of deterrence.<sup>3</sup> Following the attacks, the National Security Strategy for 2002 used more forceful language in describing the military: “The United States must and will maintain the capability to defeat any attempt by an enemy—whether a state or non-state actor—to impose its will on the United States, our allies, or our friends.”<sup>4</sup> This document also announced a policy of preemption as a means of self defense.<sup>5</sup> This change was reflected in the National Military Strategy. Its goal is: “...Full Spectrum Dominance – the ability to control any situation or defeat any adversary across the range of military operations.”<sup>6</sup>

As the military transforms to fulfill its goal of Full Spectrum Dominance, it is expected to have greater speed, precision, lethality, endurance, and a reduction in collateral damage.<sup>7</sup> These are all characteristics that would conceivably make the use of force more acceptable to the public. Potentially a military campaign could produce fewer casualties and less destruction while still bringing about the defeat of the enemy. This paper seeks to determine if the decision point to use force is likely to shift to an earlier point in the grand strategy as a result of

transformation. The first section provides an overview of joint transformation and gives an indication of the potential 2020 force. The second section pairs this force with four scenarios from the National Intelligence Council's 2020 Project and analyses where the decision point to use force might be in a crisis as compared to a historical example.<sup>8</sup> The third section offers conclusions on the impact of transformation on the decision point to use force.

### Joint Transformation

Transformation is not meant to imply a future end-state for the military.<sup>9</sup> It is a process of change that has been taking place throughout history as militaries evolve to take advantage of new technologies, organizational concepts, and resources. Transformation is more than adopting a new technology to replace an old one. For example trading in a typewriter for a computer provides little advantage if the operator persists in using it as if it were a typewriter. Transformation takes place when innovation leads to the implementation of a new way of working that takes advantage of the computer's power.

Military transformation is necessary today to take advantage of the rapid changes taking place in information technology. In 1965, Gordon E. Moore observed that semiconductor complexity was advancing rapidly – to the point that it was doubling approximately every two years. His discovery has since been named Moore's Law. This law holds that "The power of information technology will double every 18-months, for as far as the eye can see."<sup>10</sup> The power of information technology effects not only the transmission of information, but the gathering and processing functions as well. It enables machines to take over processes that would otherwise require human thought. Because of the rapid pace of the change, the gap between those who are able to apply the technology and those who can not is growing much wider than it has for previous mechanically based technology changes.

As Clausewitz notes, "War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty."<sup>11</sup> One significant element of this fog is uncertainty of the disposition of friendly forces. This knowledge is dependent on the network that connects the various formations of warfighters, their support systems, and the national command authority. Over time, communications technology progressed from visual and audio means (flags, drums, horns, couriers) to wire-line systems to radios. These improvements to the network often resulted in changes to doctrine and strategy that involved greater dispersion of forces and greater complexity of operations. The net level of uncertainty remained relatively constant at the decision maker's maximum level of tolerance. The rapid progress of information technology is changing this balance. The capacity of the

network has grown robust and reliable enough to accommodate greater dispersion and complexity while still maintaining and improving the friendly force picture. Each improvement in the friendly force picture reduces fog and enables better decisions.

A second element of fog is uncertainty of the disposition of enemy forces. Information technology enables ever increasing Information, Surveillance, and Reconnaissance (ISR) capability. While the resolution of the enemy picture will not be as good as the friendly force picture and will vary depending on the nature of the enemy (conventional, irregular, terrorist, etc.) and terrain (open, urban, jungle, etc.), it should still continue to improve.

The networking of people, platforms, weapons, sensors, and decision aids, will result in a shared battle space awareness that greatly reduces uncertainty. Information superiority will lead to decision superiority. The network-centric force enables tactical formations to be self-synchronizing. Speed, precision, lethality, and endurance are increased. The ability to mass the effects of joint forces will be enabled without having to mass forces. Collateral damage will be reduced.<sup>12</sup>

A RAND study evaluated network-centric operations applied to air-to-air combat. The performance of F-15s networked with the Joint Tactical Information Distribution System was compared to the performance of F-15s with only voice communications. Over 12,000 sorties were flown in both day and night conditions. The kill ratio was improved by two and a half times for the networked aircraft. Increased situational awareness provided more time for decision making and enabled self-synchronization.<sup>13</sup>

A second RAND study evaluated the performance of a Stryker brigade compared to a non-digitized light infantry brigade (the closest unit to use as a baseline) in a Joint Readiness Training Center scenario. The Stryker brigade had a more difficult scenario as it was tasked to execute additional simultaneous offensive, defensive, stability, and support operations in several noncontiguous areas. The study found the network-centric operations of the Stryker brigade resulted in much higher quality of shared informational awareness compared to the light infantry brigade (80 vs. 10-percent). The time required to make key decisions by the Stryker brigade commander was significantly less than the light infantry brigade commander (3-hours vs. 24-hours). Casualty ratios were significantly different as well. The blue:red casualty ratio for the Stryker brigade was 1:1. For the light infantry brigade it was 10:1. As the Stryker brigade in the test used legacy communications systems with limited bandwidth, future network-centric systems were expected to perform even better.<sup>14</sup>

Network-centric operations unfortunately have several vulnerabilities. First, there is an increased potential for fratricide if a vehicle's blue force transponder is broken or inoperable.

Second, a network degraded by technical failure or enemy action could force a unit to rely on little used or trained manual back-up systems. Third, satellites that enable network-centric operations could be vulnerable to anti-space operations.<sup>15</sup>

At the strategic level, where the decision to wage war is made, there will still be Clausewitzian fog that will not be cleared by technology. As the following examples from the Cuban Missile Crisis will illustrate, there will always be uncertainty as to the adversary's thoughts and intents. Additionally, there will always be the potential for human error.

President Kennedy could see the photographic evidence of the Soviets developing ICBM bases in Cuba, but he could not determine Nikita Khrushchev's intent. Prior to sending missiles to Cuba, the Soviet Union had never deployed missiles off its own soil. Although the defense build up on Cuba was well known, it was not clear if it would include nuclear arms. The Soviets stated both publicly and privately that only defensive weapons were being shipped – no nuclear warheads would be deployed. When the assembly of Soviet ballistic missiles in Cuba was discovered, President Kennedy could not comprehend why the Soviets had taken this action.<sup>16</sup> As the crisis unfolded both sides had difficulty determining their adversary's intent and how far they could be pushed. Nikita Khrushchev sent President Kennedy a letter indicating he would withdraw the missiles if the United States pledged not to invade Cuba. The next day, he made a public radio announcement that additionally required the removal of American Jupiter missiles from Turkey. President Kennedy and his team could not determine if there was genuine interest in bringing the crisis to a close or if the Soviets were trying to buy time to make the Cuban missiles operational. Khrushchev was changing his mind from one day to the next as to how he should proceed.<sup>17</sup> Advances in technology will provide a clearer picture of enemy activities and communications. This picture will hint at what the national leadership is thinking. But no amount of technology will enable one to know what an adversary is thinking – especially if the adversary is uncertain himself.

President Kennedy was personally managing many aspects of the crisis to ensure that an inadvertent or well meaning but unapproved action would not accidentally trigger a nuclear war. During the crisis nuclear missile facilities were at a heightened state of alert. Most of the test missiles at Vandenberg Air Force Base were converted to operational nuclear missiles. A previously scheduled test launch of a missile bound for Kwajalein Island still took place.<sup>18</sup> A hostile observer would have no way of knowing if a missile launch in the midst of a crisis was armed or a test. President Kennedy had no intention of adding uncertainty to the situation. He was being extra careful not to inadvertently trigger a nuclear confrontation. No amount of technology is going to be able to analyze all of the approved activities of the military and cull out



for a second look those actions that may no longer fit the commander's intent – especially when a leader at a subordinate echelon still believes he is taking appropriate action. At the national command authority level there is no way of knowing if an action was directed by an opposing national command authority or if the action was an oversight resulting from the momentum of the organization.

In the midst of the crisis an early warning radar site inadvertently ran a test simulation of a nuclear attack. Concurrently, a second radar site that had just been brought online to provide redundant coverage detected a satellite. From NORAD's perspective, it looked like Cuba had launched a missile toward Florida. There would be no time to respond prior to the missile's impact.<sup>19</sup> Operator error increased the fog of uncertainty. As technology advances, the potential for errors intentionally or unintentionally induced by the system's operators will still remain. The decision maker will have high resolution data that will appear to be trustworthy and accurate, yet could be completely false.

### Future Scenario Analysis

"Mapping the Global Future: Report of the National Intelligence Council's 2020 Project" provides four scenarios for what the future could look like if current global trends continue. These trends include areas such as: demographics, economics, energy, religion, technology, government, and foreign relations. The most significant trend is globalization and the effects of economic interdependence that it creates. The second most significant trend is the rise of radical Islam. The interaction of trends forms the basis for scenario development. In the first scenario, globalization dominates, but the dynamics are altered by a growing power shift to China and India. In the second scenario, the United States dominates the globalization trend. In the third scenario, a growing transnational radical Islamic movement establishes a new Caliphate. In the fourth scenario, radical Islamic terrorism creates a pervasive climate of insecurity.<sup>20</sup> In the following paragraphs, I have overlaid a Full Spectrum Dominant military force on each of the scenarios and used the strategy formulation model to estimate the likelihood of using military force to resolve a national security threat.

Some essential factors do not lend themselves well to forecasting. In the absence of a forecast, I have assumed that the United States' National Security Strategy remains constant. A second critical factor is the individual decision maker – the President. There are a variety of theories explaining the dynamics of presidential decision making.<sup>21</sup> Likewise, the individual psychology and character of the president results in a unique approach to decisions.<sup>22</sup> Rather than try to second-guess the President, I have used my own judgment to maintain consistency.

## China Scenario

In the first scenario, the growing economic clout of Asian countries is emphasized by a change of meeting venue for the World Economic Forum. Since 1971, this assembly of national political leaders, non-governmental organizations, and companies with revenues over one billion dollars, has been meeting annually in Davos, Switzerland. In order to maintain Asian participation, an agreement has been reached to hold the meeting in an Asian country every other year. China and India are now the driving force behind globalization. Because of their large internal markets there is less dependency on trade with the United States. Western nations will no longer be able to set international industrial standards – they will have to adapt to Asian standards in order to retain market share. China welcomes foreign students while visa restrictions prevent foreign students from attending schools in the United States. Asian energy consortiums are functioning much like the East India Company – essentially taking over the role of government in several small states. In a move toward diversification, China is liquidating portions of its investments in United States government debt. China's economic prosperity has not always been promising. Along the way to 2020, they had an economic downturn. However, their domestic market enabled them to recover without foreign assistance. This downturn spurred a growth in nationalism and raised tensions over Taiwan. China's position of power coupled with its desire to reestablish governance of Taiwan is the greatest security risk in this scenario.<sup>23</sup>

The United States established diplomatic relations with China in January 1979. In doing so, it acknowledged one China – inclusive of Taiwan.<sup>24</sup> (If China were the United States, Taiwan would be somewhat like a state that has seceded from the union.) China seeks to reassert governance over Taiwan; Taiwan prefers to maintain its own governance. The United States expects Taiwan's future to be determined by peaceful means. If China were to act unilaterally to reestablish governance of Taiwan, the Taiwan Relations Act maintains "...the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan."<sup>25</sup> President Bush has reiterated that the United States would "rise up in the spirit of the Taiwan Relations Act"<sup>26</sup> if China unilaterally invaded Taiwan. Neither the Act nor the President's comments specify what combination of the elements of national power would be used to resist China's actions.

Tension in the Taiwan Straits has its origins in the Chinese civil war. In 1949, Chiang Kai-shek and his followers relocated to Taiwan after being ousted from mainland China by Mao Tse-tung. Since then, there have been three instances where the United States has intervened to

dissuade the People's Republic of China (PRC) from attacking Republic of China (ROC) forces on Taiwan and its outlying islands. In the first case (1954-1955), PRC forces attacked following ROC's movement of 73,000 troops to the islands of Quemoy and Matsu. The United States responded with threats of nuclear force. In the second case (1958-1959), PRC forces resumed their attacks on the islands. The United States responded with a naval force and further threats of nuclear force. In the third case (1995-1996), PRC forces conducted a series of large exercises that included many of the operational phases that would be necessary for a ground assault on Taiwan. The exercises included threatening missile tests directed in the vicinity of Taiwan. The United States responded by sending two carrier battle groups to the Straits.<sup>27</sup> In each of these cases, the decision point to employ the military element of power came after the PRC took actions that could be considered an act of war – artillery fire or missile launches. To determine when the decision point might occur in the future, it is necessary to consider changes in the national elements of power and the domestic and global environment.

The military balance of power is changing in the region. Taiwan has shown a reluctance to fund upgrades to its defenses and is growing weaker relative to China. While the United States is developing its military for full spectrum dominance, China appears to be focusing its efforts on a military build-up that would enable it to force the reunification of Taiwan. China is developing area denial capabilities that would inhibit third party interference with any move against Taiwan. Force modernization initiatives include anti-satellite weapons, cyber-warfare, improved C4ISR, and upgraded ballistic missiles designed to evade anti-ballistic missile defenses.<sup>28</sup> China's National Defense Policy provides only general information on the direction of their military build-up, but several themes are apparent. One is a greater emphasis on joint operations. A second is strategic force projection. A third is "informationization." They have a strategic goal "...of building informationized armed forces and being capable of winning informationized wars by the mid-21st century."<sup>29</sup> As the Quadrennial Defense Review notes, China has the greatest potential of any emerging power to compete militarily with the United States.<sup>30</sup>

In the scenario, if China were to use its increased national elements of power, short of military actions, in an effort to coerce Taiwan into reunification, I think much of the world would respond with tolerance given China's position in the global economy. There would be hopes for a transition similar to Hong Kong's. However, the United States would likely still respond in accordance with the Taiwan Relations Act. China could increase its coercion by using military force short of war. It could potentially deploy and maneuver forces in a way to achieve such a strategic advantage as to compel Taiwan to negotiate reunification without firing a shot. The

United States would likely deploy forces to the area as a deterrent. Deploying forces to the area would likely require a long term commitment. By 2020, China would have already waited seventy years for reunification – they could probably temporarily scale back and wait for U.S. forces to go home.

If China escalated the crisis to include the use of force, I think the United States would respond with force – a failure to do so would have much broader global impacts than the fate of Taiwan. The decision point to use force in this case would be based on China's actions, not on having a force advantage. Preemption in the National Security Strategy applies to countering the threat of WMD. China might use a massive first strike against Taiwanese military targets, but I do not think they would employ a means that would qualify as WMD. If there was an indication of a pending use of WMD, the decision point for a preemptive attack would be based on an attempt to determine if the Chinese leadership was serious or bluffing – not on a U.S. force advantage. If there was an indication that China was about to strike U.S. forces in the region, I think there would be a heightened state of readiness, but no preemptive strike. A preemptive strike by the United States would probably not be acceptable domestically or internationally – it would incite China to redouble its force modernization efforts.

In this scenario, the decision point for the use of force would not change as a result of transformation. In a conventional conflict the decision point would depend on China initiating an attack. The decision for preemptive attack to counter WMD would be based on an assessment of China's intent, not friendly force capabilities.

#### U.S. Dominance Scenario

The second scenario is similar to the first scenario except the United States maintains its predominance in world affairs. Several factors have lead the Europeans to close cooperation with the United States. First, because of an increase in terrorist attacks on European countries, they have joined ranks in support of the United States' counter-terrorism efforts. Second, environmental degradation by China and other developing countries concerned the European public to the extent that their national leaders rejected the Kyoto Agreement and established a new framework for environmental protection with the United States. Third, the acceptance of Turkey into the European Union brings Europe into closer proximity to the Middle East and increases a desire for cooperation with the United States. China is not as strong in this scenario. An economic relapse has weakened its position in the global economy. Chinese nationalism has grown and Taiwan still presents the greatest potential crisis. Instead of taking a

more active role in Taiwan, the United States has yielded to international pressure and has reduced its profile in the region – troop reductions take place in Japan and Korea.<sup>31</sup>

This scenario presents two strategic differences from the first scenario: Chinese nationalism is stronger and could encourage an attack on Taiwan, non-military elements of power from the United States and its allies have a greater potential for preventing conflict. The decision analysis from the first scenario would still be applicable and the conclusions would remain the same.

### Caliphate Scenario

The third scenario shifts to a globalization counterforce – an emerging Caliphate. In this scenario, the trend toward greater religious identification is emphasized. Asia and Africa see an expansion of Christianity while Europe's Muslim population grows through immigration. Religious activism increases as adherents seek to shape their environment to their view of "right." Demographic trends indicate a large youth bulge in Middle Eastern and West African countries. Left out of the benefits of globalization and inspired by Islamic education of past greatness, the youthful population fuels the activism trend. Out of this environment a young Islamic preacher rises to eminence. He is not associated with al Qaeda, terrorism, or a political movement. He gains a worldwide following among Muslims and is proclaimed a Khalifah. His supporters include ruling elites who wish to remain in power as well as non-Muslim anti-globalization activists. A transnational virtual Caliphate is established with a goal of becoming an actual state.

The Caliphate has international implications. The existing Muslim population coupled with an increased flow of middle class Muslim migrants creates hesitancy in Europe to take action that might result in any growth of radical Islam. Although there is turmoil in the oil markets, the United States has not moved to seize the oil fields because there is insufficient international support and a Muslim backlash is feared. Russia, with U.S. assistance, is fighting Islamic movements attempting to overthrow the governments of several Central Asian states. Pipelines to China from the region have been interdicted, but China has declined U.S. assistance. There is civil war in Afghanistan. Pakistan is close to falling to radical Islam. Iran could be a potential U.S. ally. Within the U.S. population, there is some support for the Caliphate.<sup>32</sup>

The scenario presents a number of potential national security issues for the United States. Oil supply would undoubtedly be a concern, but I think whatever form of government takes root in the Middle East, it will still be inclined to export oil to raise capital. A fear of the unknown outcome of a changing geopolitical landscape could bring Eisenhower's Domino Theory back

into vogue with the Caliphate replacing communism as the antagonist. Intervening militarily to support a friendly, but failing, government could be difficult to sustain in the long run and could propagate Islamic radicalism in a way that would further destabilize other countries in the region. Pakistan however, as a nuclear power, could not be ignored. Even today, the Congressional Research Service notes that “Pakistan’s nuclear arsenal and fissile material may be vulnerable to seizure in the event of a coup by dissident military officers or the seizure of power by radical Islamists with sympathy for terrorist groups.”<sup>33</sup>

What strategy might there be for securing Pakistan’s nuclear weapons? Initially there could be economic support to help sustain the friendly regime. But if the regime appeared close to being overthrown and refused to relinquish its nuclear weapons to another state for safe keeping, the United States would have to decide if and when to forcibly try to secure them. Pakistan’s weapons are likely stored in component form – the nuclear device separate from the delivery means.<sup>34</sup> This would make it easier to transport and hide the nuclear component. Its weapons are also likely stored in locations hardened to protect them from a nuclear attack.<sup>35</sup> Intelligence for combating WMD is currently limited.<sup>36</sup> Even with future ISR systems, it is likely to be difficult to identify and track the movement of nuclear materials within Pakistan or across its borders.

The leaders of a military coup or radical Islamic movement could maintain the same level of security over nuclear weapons as the old regime but there would be no way of knowing for certain in advance. In the turmoil of a regime change, it would be easier to lose accountability of nuclear materials than when a regime is in steady state. A preemptive strike to seize nuclear weapons and destroy nuclear weapons production capability prior to the government’s loss of control would be both risky and unprecedented. There would be no way of knowing with certainty that the government was indeed on the brink of being overthrown. An attack would weaken an already unstable government and could lead to a more rapid government transition or to an ungoverned state. Although a future force would have a higher probability of success than the current force, there would be no guarantee that all nuclear material would be recovered. India’s and China’s response could be unpredictable as well. In the end, I do not think having the capabilities of a future force would change the decision point to use force. The fog of not knowing the minds of the friends and adversaries involved would prevail. The decision point would be based on trying to determine the greater risk: failing to seize one or more nuclear weapons in a preemptive strike or failing to seize one or more during or following a regime change. The decision maker would have to look beyond the military piece and assess the overall political impacts.

## Pervasive Insecurity Scenario

The fourth scenario is one of pervasive insecurity. The underlying causes of terrorism have not been resolved and its use continues to grow. The growth of terrorism results in greater security measures that inhibit the globalization process and result in an economic downturn. The weakened economy increases poverty and destabilizes already weak states. Disenfranchised youth are more easily recruited by radical Islamic organizations. Criminal organizations can more easily operate in the weak states resulting in increased arms and WMD trafficking. Terrorists do not necessarily need arms and WMD – they can use cyber-terrorism to attack utility systems, financial systems, communications systems, and any of the other networked systems on which we have grown dependent. A vicious cycle has developed where increasing security measures taken to counter terrorism result in the growth of terrorism.<sup>37</sup>

The decision to use military force in this scenario would be complex. There would undoubtedly be great domestic pressure to find a solution. On one hand there would be demands for greater security, while on the other there would be opposition to the increased government electronic monitoring of the citizenry and visitors necessary for detecting terrorists. Business interests would oppose the cost increases associated with restricting the international flow of goods and services. A downturn in the economy resulting from a change in world trade would add more pressure. There would probably be competing proposals for courses of action each with its own political constituency.

Formulating a strategy involving military force would first need to identify an appropriate target. By 2020, terrorist organizations are likely to be decentralized, independent of state sponsorship, and internet based.<sup>38</sup> At least two courses of action would be available for using military force. First, there could be retaliatory strikes on terrorist leaders or facilities. Second, actions could be taken against a failed state or a state that tolerates terrorist activities.

President Clinton's strategy in August of 1998 exemplifies the first course of action. In response to the embassy bombings in Kenya and Tanzania, he directed military strikes on six terrorist-related training facilities in Afghanistan and a chemical weapons production site in Sudan. These facilities were linked to Osama bin Laden who was linked to the bombings.<sup>39</sup> Domestically there was strong bipartisan congressional support for this action.<sup>40</sup> Additionally polls indicated that 66 percent of the American public supported the attack.<sup>41</sup> Internationally, support for the attacks was mixed. Traditional United States allies were supportive while Russia and Muslim countries were opposed.<sup>42</sup> The difficulty with this course of action is revealed in the cost benefit analysis. The necessary ISR, targeting, and force projection required to destroy terrorist training camps is well within the means of the military. While destruction of facilities

may satisfy the desire for retaliation, it does not necessarily achieve any long term benefits. In the above example, 47-percent of the American public believed the attacks were likely to increase the risk of terrorist actions against Americans.<sup>43</sup> This finding would reinforce the cycle of fear envisioned in the future scenario. It is indeterminable if the attacks prevented or delayed a future terrorist attack – but it is clear that terrorist attacks have continued with greater severity. Training camps have minimal infrastructure and are easily replaced. The Muslim opposition to the strikes likely encouraged more terrorist recruits. Positively identifying a WMD production site and convincing the public with unclassified data is much more difficult than identifying a training camp. The site that President Clinton referred to as a chemical weapons production facility was the El Shifa Pharmaceutical Industries Company plant in Khartoum, Sudan. A soil sample from near the plant tested positive for a chemical that can be converted into VX nerve gas. From the perspective of the Sudanese, the League of Arab States, and other Muslim countries, the plant was only producing animal-deworming fluid.<sup>44</sup> The assets of the plant's owner were frozen, but were later released because the United States government did not want to reveal supporting intelligence data in court.<sup>45</sup> Over a year after the destruction of the plant, the Senate Select Committee on Intelligence still had concerns about the evidence used to justify the attack.<sup>46</sup> It can not be proven to the public whether or not the plant produced nerve agent – but the attack clearly damaged American credibility in the region and generated anti-American sentiment.

For this course of action, I conclude that the decision to use military force in the future will be no more likely than it is today. Today's weapon systems can already precisely target terrorist facilities with minimal risk of collateral damage. Technology will not remove the potential for innocent civilians straying into the impact area. Tomorrow's ISR platforms are likely to provide greater certainty of a facility being terrorist related, but the data will still be too classified to present to the public. The terrorist's ability to exploit the destruction for their propaganda campaign will further the cycle of violence. Therefore the decision process to use force in this case is unlikely to be effected by having a Full Spectrum Dominance military.

President Bush's invasion of Afghanistan exemplifies the second possible course of action. Investigation following the terrorist attacks of 11 September 2001, indicated they had been coordinated by Osama bin Laden and al Qaeda from within Afghanistan. President Bush demanded the Taliban government of Afghanistan deliver the terrorist leaders to the United States, close all terrorist training camps, and allow full access for inspections to ensure the camps were closed.<sup>47</sup> When the Taliban did not comply, Operation Enduring Freedom commenced in October 2001 to remove the Taliban regime and destroy al Qaeda forces. In



December 2001 Hamid Karzai was sworn in as prime minister of an interim government. Operations are still ongoing against remnant Taliban forces.

Domestic and international support was strong for the commencement of Operation Enduring Freedom. The decision to use military force in retaliation for the attacks on the Pentagon and World Trade Center probably took place almost as soon as al Qaeda's involvement was identified.

In the future scenario, the decision to undertake a regime change, instead of a retaliatory strike or other action, would depend on considerations of how to achieve Liddell Hart's "better peace."<sup>48</sup> A network-centric military might secure a rapid military defeat, but there would still need to be an ability to establish a new government capable of maintaining sovereignty over the state. In this respect, the unresolved conflicts in Afghanistan and Iraq could counter balance decision makers' enthusiasm for the rapid employment of a transformed force.

## Conclusion

Joint transformation will achieve a network-centric force that will have the information superiority necessary to achieve decision superiority over an enemy force. Speed, precision, lethality, and a reduction in collateral damage will result. In order to determine if this transformation would result in an earlier decision point to use force, four future scenarios were analyzed.

In the China and U.S. dominance scenarios, the network-centric force was matched against China's future force in a Taiwan Straits conflict. Analysis determined that in a conventional conflict, the decision point to use force would depend on China initiating an attack. The decision for preemptive use of force to counter WMD would be based on an assessment of China's intent, not friendly force capabilities.

The Caliphate scenario considered an unstable Pakistan where continuity of the current friendly regime is uncertain. It could be on the verge of overthrow by either radical Islamists or a military coup. Security of Pakistan's nuclear weapons would be at risk. Analysis determined that the decision to use force would be based on the probability of the loss of control of nuclear materials – again a separate issue from the capabilities of the joint transformed force.

The insecurity scenario assessed when military force might be used to counter terrorism in a world of pervasive insecurity. In the case of a retaliatory strike or a forcible regime change the decision point to use force would be based on an assessment of the potential consequences to determine if stability would be increased in the long term. Superior capability might make

commitment of the military theoretically easier, but the realities of the domestic and international political situation would probably far outweigh such considerations.

Overall, it is apparent that although the conduct of war will change as a result of transformation, the decision to wage war will not be significantly affected. At the grand strategy level in the United States, considerations of how to achieve enduring security within acceptable political and ethical constraints will prevail over the expedient use of military power.

## Endnotes

<sup>1</sup> George W. Bush, *National Security Strategy of the United States of America* (Washington, D.C.: The White House, March 2006), 1.

<sup>2</sup> U.S. Department of Defense, *DOD Dictionary of Military and Associated Terms*, Joint Publication 1-02 (Washington, D.C.: U.S. Department of Defense, 12 April 2001), 408.

<sup>3</sup> William J. Clinton, *A National Security Strategy For A New Century* (Washington, D.C.: The White House, December 1999), *iii* and 8.

<sup>4</sup> George W. Bush, *The National Security Strategy of the United States of America* (Washington, D.C.: The White House, 17 September 2002), 29.

<sup>5</sup> *Ibid.*, 6.

<sup>6</sup> Richard B. Meyers, *National Military Strategy of the United States of America 2004* (Washington, D.C.: Chairman of the Joint Chiefs of Staff, 2004), *iv*.

<sup>7</sup> *Ibid.*, 5.

<sup>8</sup> National Intelligence Council, *Mapping the Global Future, Report of the National Intelligence Council's 2020 Project* (Washington, D.C.: U.S. Government Printing Office, December 2004), 16; available from <http://www.foia.cia.gov/2020/2020.pdf>; Internet; accessed 30 January 2007.

<sup>9</sup> Donald H. Rumsfeld, *Transformation Planning Guidance*, (Washington D.C: Office of the Secretary of Defense, April 2003), 1; available from [http://www.oft.osd.mil/library/library\\_files/document\\_129\\_Transformation\\_Planning\\_Guidance\\_April\\_2003\\_1.pdf](http://www.oft.osd.mil/library/library_files/document_129_Transformation_Planning_Guidance_April_2003_1.pdf); Internet; accessed 19 February 2007.

<sup>10</sup> Joel Garreau, *Radical Evolution* (New York: Broadway Books, 2005), 49.

<sup>11</sup> Carl von Clausewitz, "On Military Genius," in *On War*, Michael Howard and Peter Paret, eds. and trans. (Princeton, NJ: Princeton University Press, 1976), 101.

<sup>12</sup> *Elements of Defense Transformation*, (Washington D.C: Office of the Secretary of Defense, October 2004), 8.

<sup>13</sup> Daniel Gonzales et al., *Network-Centric Operations Case Study: Air-to-Air Combat With and Without Link 16* (Arlington, VA: RAND Corporation, 2005), xv; available from [http://www.oft.osd.mil/library/library\\_files/document\\_391\\_Air-Air%20Case%20Study%20FINAL.pdf](http://www.oft.osd.mil/library/library_files/document_391_Air-Air%20Case%20Study%20FINAL.pdf); Internet; accessed 23 February 2007.

<sup>14</sup> Daniel Gonzales et al., *Network-Centric Operations Case Study: The Stryker Brigade Combat Team* (Arlington, VA: RAND Corporation, 2005), xxi; available from [http://www.oft.osd.mil/library/library\\_files/document\\_392\\_MG267Z1\\_Compiled%20\(2\).pdf](http://www.oft.osd.mil/library/library_files/document_392_MG267Z1_Compiled%20(2).pdf); Internet; accessed 23 February 2007.

<sup>15</sup> John B. Tisserand III, *Network Centric Warfare Case Study Volume III: Network Centric Warfare Insights* (Carlisle Barracks, PA: Center for Strategic Leadership), 20.

<sup>16</sup> Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2<sup>nd</sup> ed. (New York: Longman, 1999), 81.

<sup>17</sup> *Ibid.*, 352.

<sup>18</sup> *Ibid.*, 239.

<sup>19</sup> *Ibid.*

<sup>20</sup> National Intelligence Council, 16.

<sup>21</sup> David Mitchell, *Making Foreign Policy: Presidential Management of the Decision-Making Process* (Burlington, VT: Ashgate 2005), *passim*.

<sup>22</sup> Steven J. Rubenzer and Thomas R. Faschingbauer, *Personality, Character, and Leadership in the White House: Psychologists Assess the Presidents* (Washington, D.C.: Brassey's, 2004), *passim*.

<sup>23</sup> National Intelligence Council, 27-45.

<sup>24</sup> Joint Communiqué of the United States of America and the People's Republic of China, 17 August 1982; available from [http://usinfo.state.gov/eap/Archive\\_Index/joint\\_communique\\_1982.html](http://usinfo.state.gov/eap/Archive_Index/joint_communique_1982.html); Internet; accessed 5 February 2007.

<sup>25</sup> *Taiwan Relations Act*, Public Law 96-8 96<sup>th</sup> Congress; available from [http://usinfo.state.gov/eap/Archive\\_Index/Taiwan\\_Relations\\_Act.html](http://usinfo.state.gov/eap/Archive_Index/Taiwan_Relations_Act.html), Internet; accessed 5 February 2007.

<sup>26</sup> Transcript: President Bush on 'Your World', Fox News, 8 June 2005; available from <http://www.foxnews.com/story/0,2933,158960,00.html>; Internet; accessed 24 February 2007.

<sup>27</sup> Douglas Porch, "The Taiwan Strait Crisis of 1996, Strategic Implications for the United States Navy," *Naval War College Review* Vol. LII, No. 3 (Summer 1999), 15-43; available from <http://www.nwc.navy.mil/press/Review/1999/summer/art1-su9.htm>, Internet; accessed 5 February 2007.

<sup>28</sup> ANNUAL REPORT TO CONGRESS Military Power of the People's Republic of China 2006; available from <http://www.defenselink.mil/pubs/pdfs/China%20Report%202006.pdf>, Internet; accessed 5 February 2007

<sup>29</sup> *China's National Defense in 2006* (Beijing: Information Office of the State Council, People's Republic of China, 29 December 2006), 2; available from [http://www.chinadaily.com.cn/china/2006-12/29/content\\_771191\\_2.htm](http://www.chinadaily.com.cn/china/2006-12/29/content_771191_2.htm); Internet; accessed 24 February 2007.

<sup>30</sup> Donald H. Rumsfeld, *Quadrennial Defense Review Report*, (Washington D.C: Office of the Secretary of Defense, 6 February 2006), 29.

<sup>31</sup> National Intelligence Council, 64-71.

<sup>32</sup> *Ibid.*, 83-91.

<sup>33</sup> Richard P. Cronin, K. Alan Kronstadt, Sharon Squassoni, *Pakistan's Nuclear Proliferation Activities and the Recommendations of the 9/11 Commission: U.S. Policy Constraints and Options* (Washington, D.C.: Congressional Research Service - The Library of Congress, updated 24 May 2005), 36; available from <http://fpc.state.gov/documents/organization/48792.pdf>; Internet; accessed 16 February 2007

<sup>34</sup> William S. Cohen, *Proliferation: Threat and Response* (Washington D.C.: Office of the Secretary of Defense, January 2001), 27; available from <http://www.defenselink.mil/pubs/ptr20010110.pdf>; Internet; accessed 16 February 2007

<sup>35</sup> Pervez Musharraf, "Pakistan to welcome world assistance for monumental reconstruction effort: President", *Press Releases-President of Pakistan*, 20 October 2005; available from <http://www.presidentofpakistan.gov.pk/PRPressReleaseDetail.aspx?nPRPressReleaseId=1491&nYear=2005&nMonth=10>; Internet; accessed 24 February 2007.

<sup>36</sup> Peter Pace, *National Military Strategy to Combat Weapons of Mass Destruction*, (Washington DC: Chairman of the Joint Chiefs of Staff, 13 February 2006), 13.

<sup>37</sup> National Intelligence Council, 93-110.

<sup>38</sup> *Ibid.*, 94.

<sup>39</sup> William J. Clinton, "Address to the Nation by the President," The Oval Office, Washington, D.C., 20 August, 1998; available from <http://www.oldamericancentury.org/downloads/1998-08-20-clinton.htm>; accessed 30 January 2007.

<sup>40</sup> Guy Gugliotta and Juliet Eilperin, "Tough Response Appeals to Clinton Critics," *The Washington Post*, 21 August 1998 [newspaper on-line]; available from <http://www.washingtonpost.com/wp-srv/politics/special/clinton/stories/react082198.htm>; accessed 30 January 2007.

<sup>41</sup> Keating Holland, "Most Americans Support Sudan, Afghanistan Strikes," *CNN.com*, 21 August 1998 [newspaper on-line]; available from <http://www.cnn.com/ALLPOLITICS/1998/08/21/strike.poll/>; accessed 30 January 2007.

<sup>42</sup> "Muslims, Yeltsin denounce attack; Allies express support," *CNN.com*, 21 August 1998 [newspaper on-line]; available from <http://www.cnn.com/WORLD/africa/9808/21/strikes.world.reax.02/>; accessed 30 January 2007.

<sup>43</sup> Holland.

<sup>44</sup> Daniel Pearl, "After the Bombings – The Difficult Search for 'Truth' --- Blasting Flap: In Sudanese Bombing, 'Evidence' Depends on Who Is Viewing It ---Dissident Fans Terror Links, But Factory Owner Says The U.S. Got It Wrong --- Worm Medicine in the Rubble," *The Wall Street Journal*, 28 October 1998 [database on-line]; available from ProQuest; accessed 30 January 2007.

<sup>45</sup> Fiona Symon, "World: Africa Factory bombing: A matter of evidence," *BBC News*, 5 May 1999 [newspaper on-line]; available from <http://news.bbc.co.uk/2/hi/africa/336375.stm>; accessed 30 January 2007.

<sup>46</sup> Vernon Loeb, "Back Channels: The Intelligence Community; Drug Plant Attack on Target, Says CIA Chief," *The Washington Post*, 21 October 1999 [database on-line]; available from ProQuest; accessed 30 January 2007.

<sup>47</sup> George W. Bush, Address to a Joint Session of Congress; Washington DC, 20 September 2001; available from <http://archives.cnn.com/2001/US/09/20/gen.bush.transcript/>; accessed 19 February 2007.

<sup>48</sup> B.H. Liddell Hart, *Strategy*, 2<sup>nd</sup> revised ed. (New York: Meridean, 1991), 338.

